

# OK1KIR: 23 cm history - 1

## 47 years spent on 23cm to complete DXCC 100

First QSO on 23cm was completed on the Field Day in 1967. Four combined helixes created the antenna and for transmitting we used FT 432/1296 MHz with ceramic triode [LD12](#) from the time of WW2. Its rf output light up nicely a 10 W car bulb (popular rf power „meter“ at these times, hi). On receiver side we used frequency convertor by OK2WCG, now ZS6AXT (published in „Amaterske radio“ Nr.8/1963) with silicon diode mixer directly on the input. At those times there was even a wideband receiver ready to receive the stations still using directly modulated oscillators.

During the next two years we developed the transmitter with ceramic tubes [LD12](#). FD+PA for 432 MHz and FT+PA for 1296 MHz. Then still with AM modulator. Antennas were demountable 2 x 15 Yagi (by OK1VR) for 432 MHz and 4x15 Yagi for 1296 MHz. In 1972 we produced 200W of rf power from PA with GI7b tube.

In 1975 Jirka, OK1DCI developed 2 m TRX „Klínovec“, so in 1976 we started SSB operation employing the new transverter with HT323 tube. The 4x15 Yagi was replaced by laminate dish 1.8m. With that equipment were participated in many contests and occasionally during good conditions from portable locations.

In 1980 we gained scrapped 4 m solid dish from Rafena radio link equipment. Later in November the provisional „mount“ of this dish allowed the first EME QSO from OK land on 23cm with SK2GJ.

## OK1KIR: 23 cm history - 2

In April 1981 the dish was placed on polar mount, in May its diameter was increased from 4m to 5.5m by the mesh rim and in December EME QSOs with VE7BBG and K2UYH were established. New LNA with MGF1412 helped with these QSOs.

That EME equipment was operational till the waterflood in August 2002.

Till that time we collected 39 DXCC via EME on 23cm band.

The waterflood destroyed most of EME equipment and became a milestone in our EME operation. Building-up the new EME station and new equipment prolonged till 2005. With discarded 4.5m solid dish from meteorological radiolocator MRL5 the first 23cm QSO with C31TLT was completed in August 2005.

In 2006 the previous GI7b PA was replaced by PA with TH308 and Jan, OK1VAO extended EME operation by digital modes.

In 2010 PA with TH308 was replaced by the new SSPA 1kW.

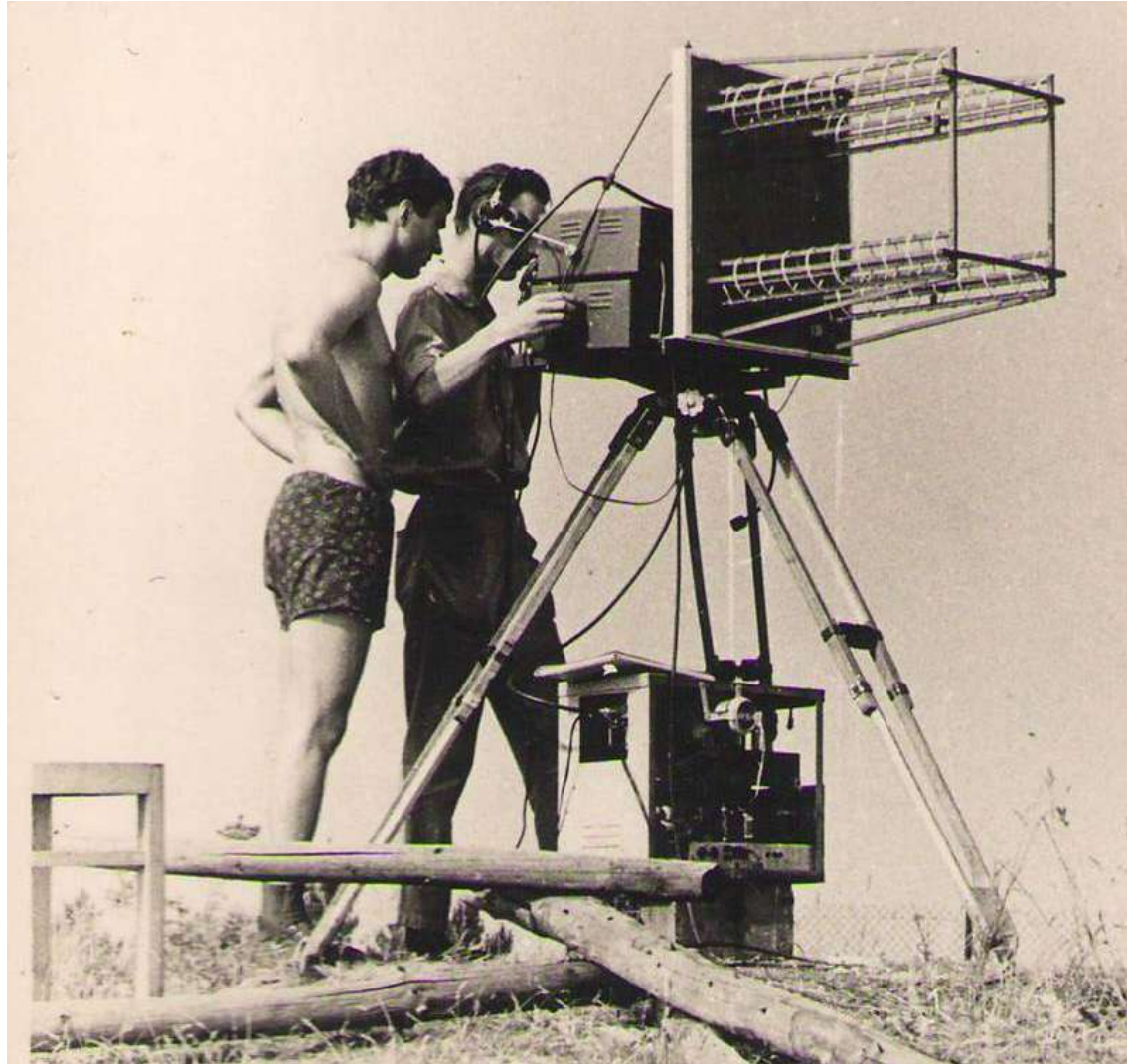
In 2012 the solid dish was increased by the mesh rim from 4.5m to 6.1 m.

Increasing EME activity on 23cm and growing amount of EME dxpeditions throughout the [whole world](#) brought us the chance to complete the target of 100 DXCC in 2014.

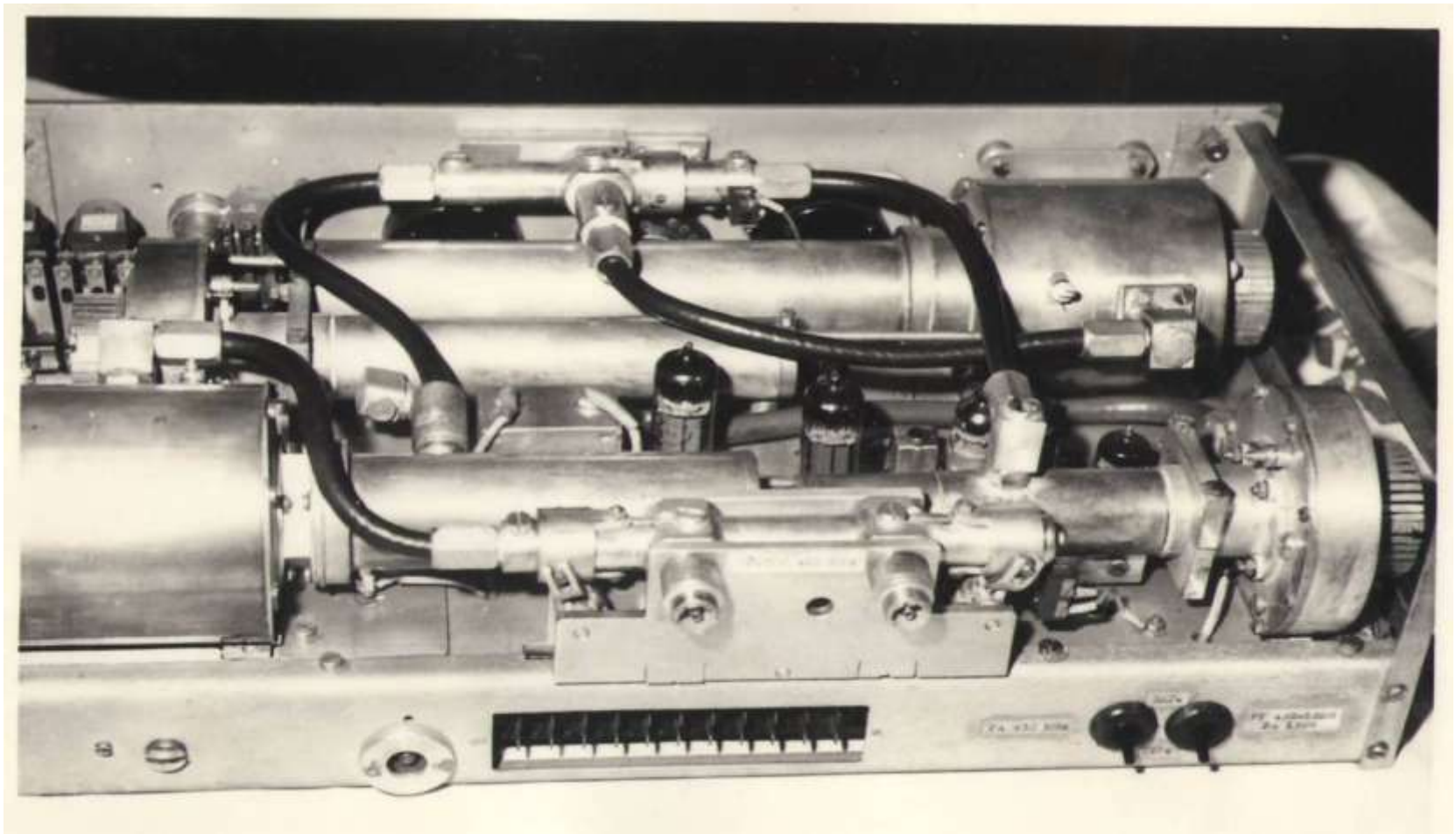
**Therefore DXCC 23cm application consists from 97 countries via EME and only 3 deleted (DL,Y2 a OK) are made via tropo.**

**In 97 countries via EME there are 50 EME expeditions.**

**1967:** That time young operators Vlada and Jirka establishing the first OK1KIR contacts on 23cm. On the ground 432 MHz driver.

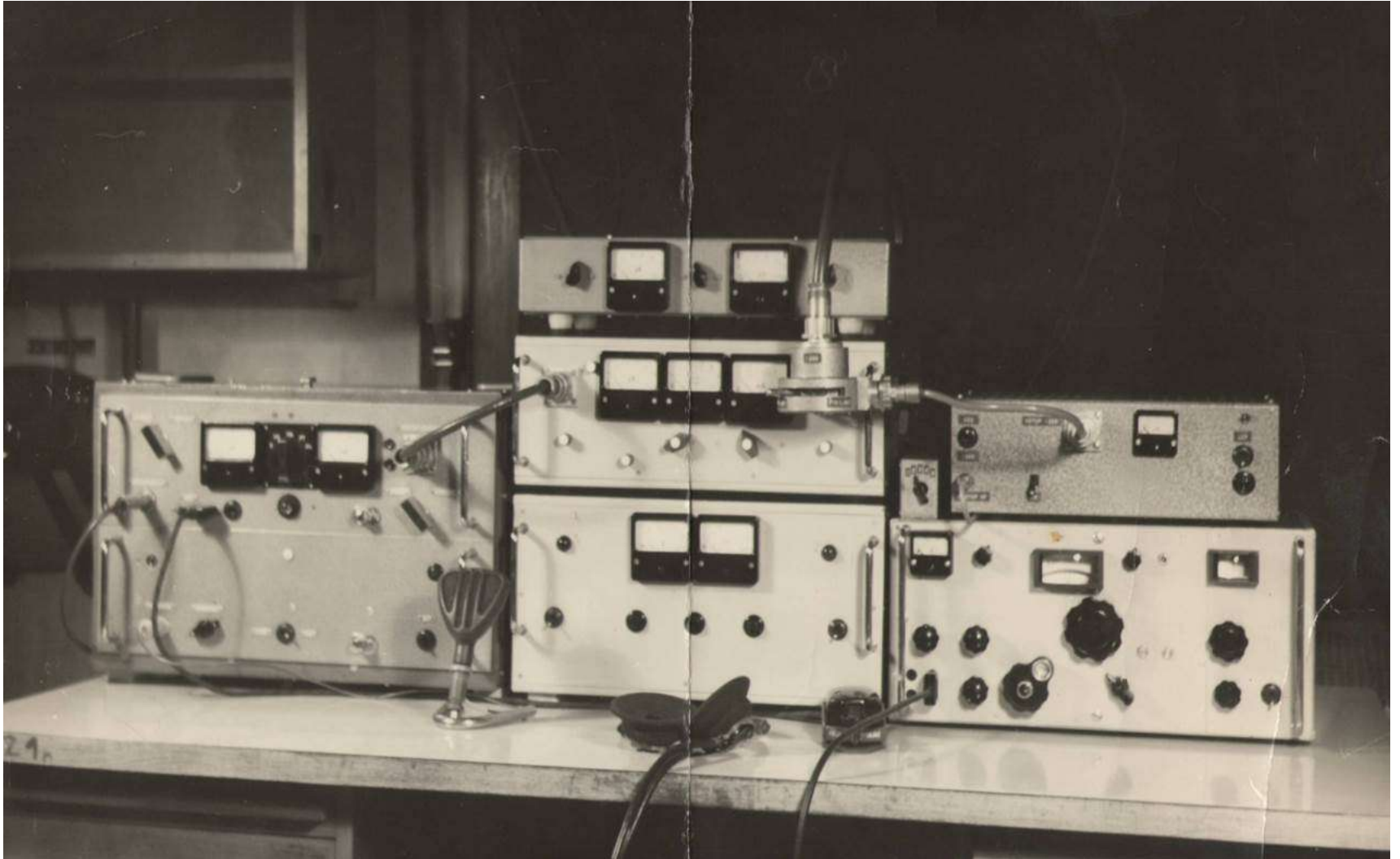


**1969:** TX 432/1296 MHz: VXO 12 MHz + multipliers + driver 216 MHz (QQE03/12 tube) to FD 216/432 MHz, followed by PA 432 MHz or by FT 432/1296 MHz and PA (all with LD12 tubes)

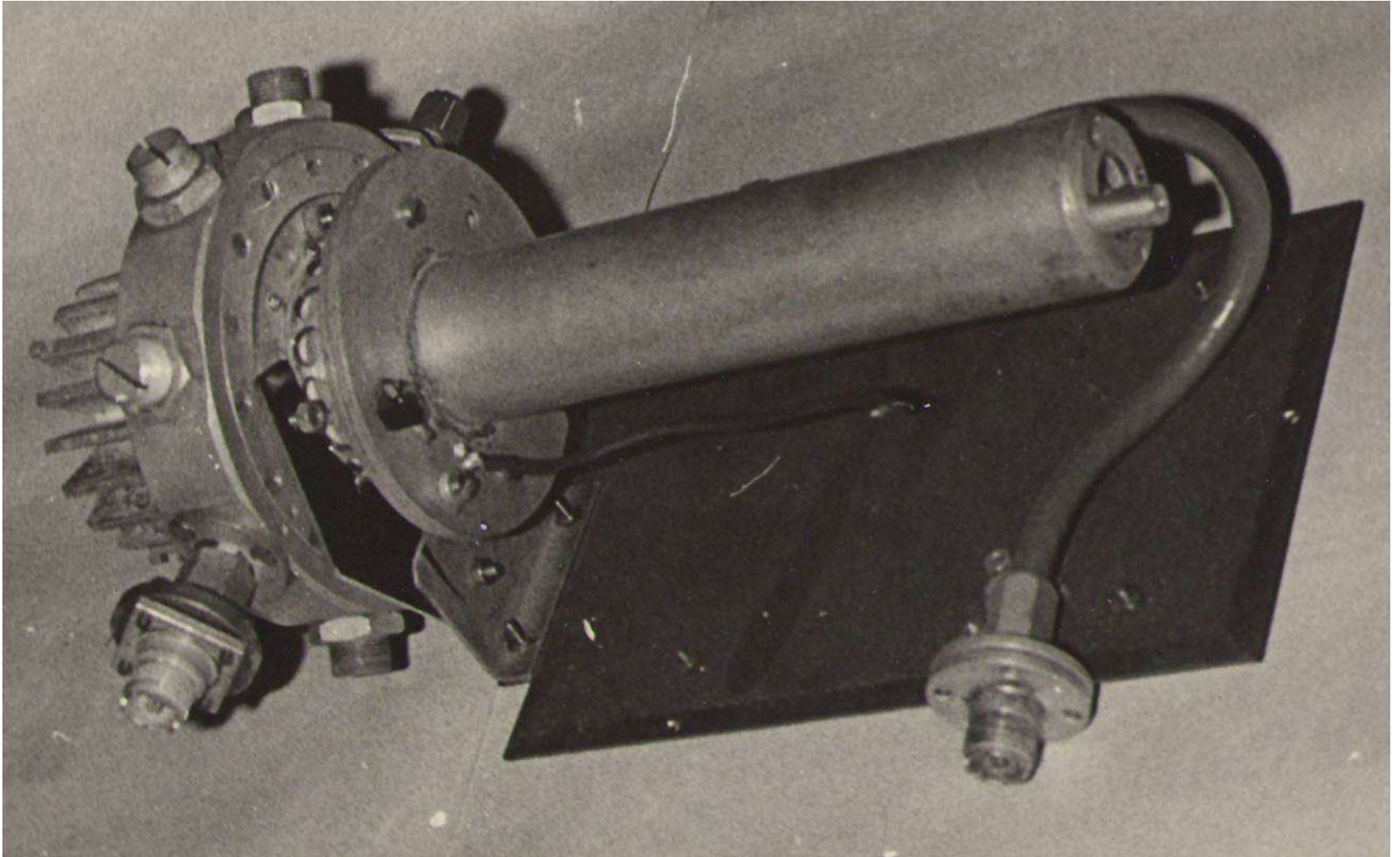




**1972:** Driver (LD12 tube) + 70/23cm PA ( in the both GI7b tube) + transistor converters to 28MHz and 28/(1...3 MHz) to MWeC RX



**1972:** PA 1296 MHz - GI7b tube



**1973:** The antenna „farm“ on Klinovec hill (GK45d/JO60LJ)



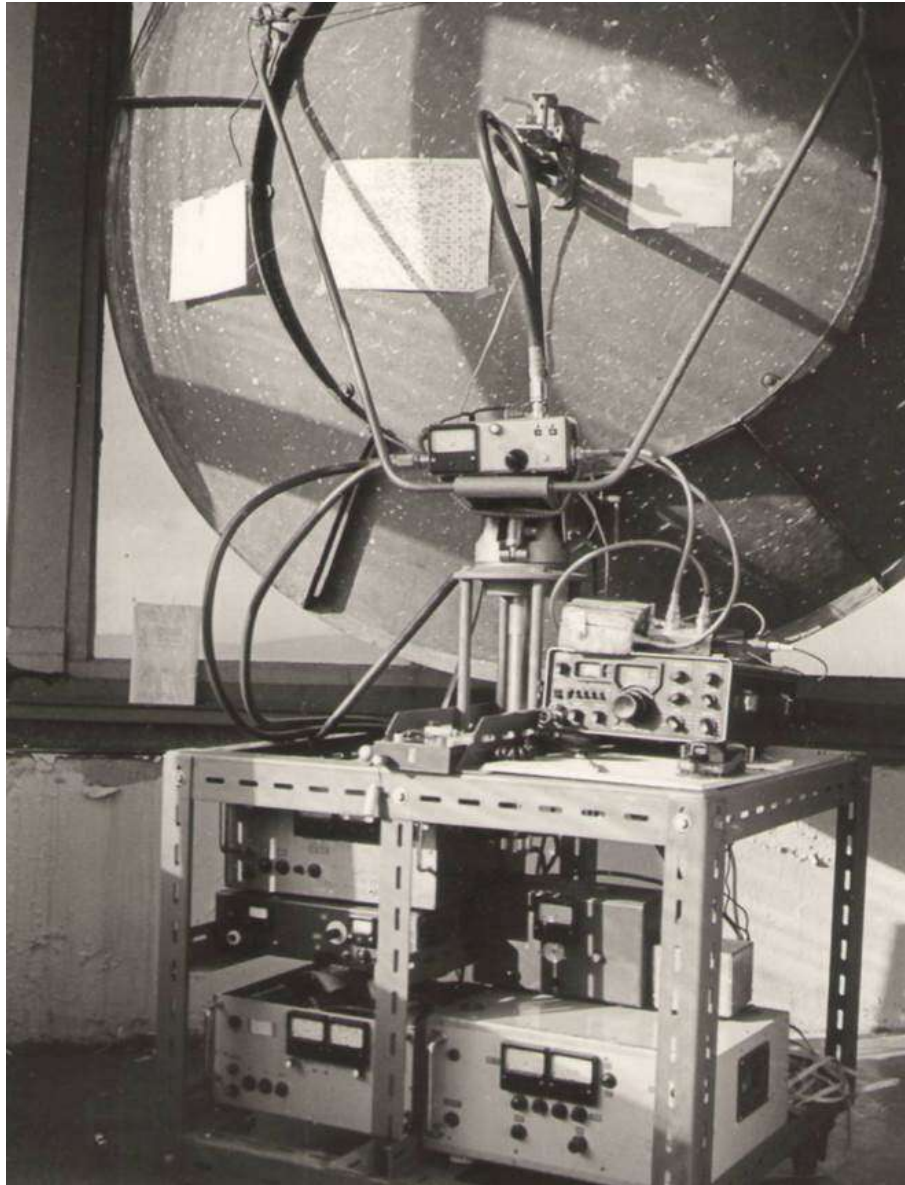


# 1979: 1st issued award SHF 6 on 23 cm





**1980:** The moveable compact on Klinovec: 1.8m dish and 23/13 cm rig



**1980:** First 23cm EME QSO - temporary „mount“ of 4m dish



**1980:** First 23cm EME QSO - Vlada, OK1DAK aligning the dish

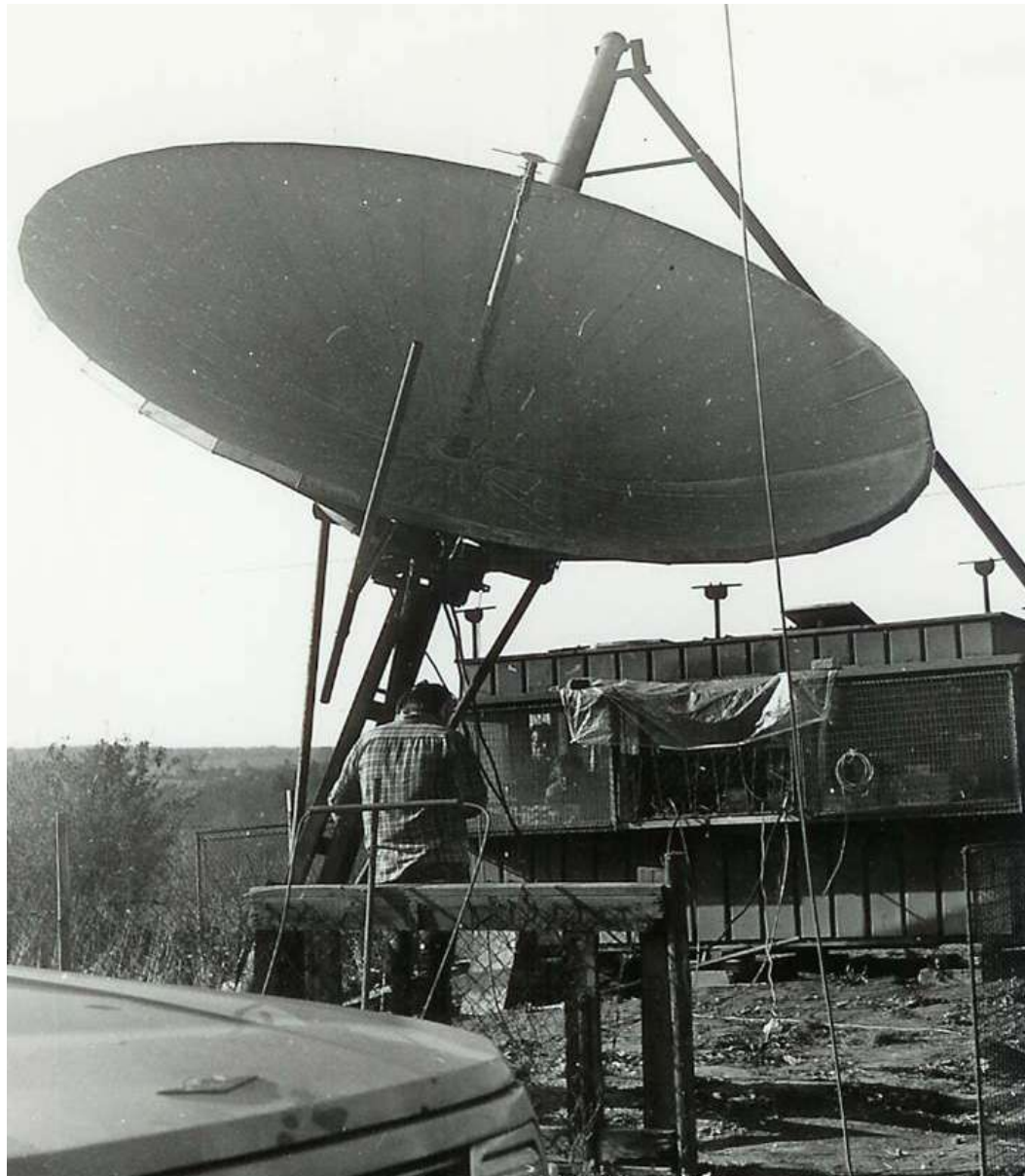




**1980:** First 23cm EME QSO - Jirka, OK1DCI at 23cm rig inside his car



**1981: Old 4 m solid dish on polar mount**

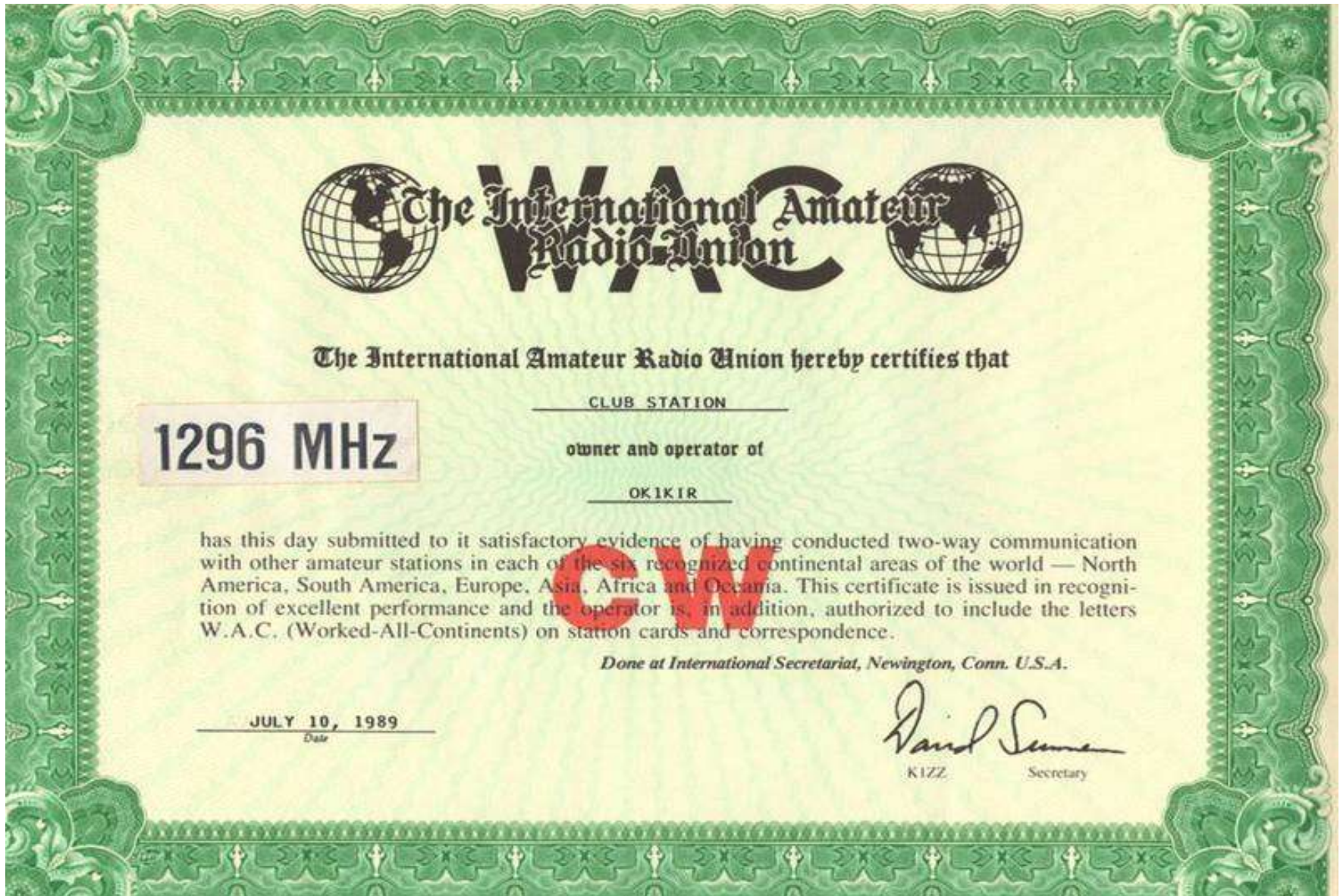


**1982:** 23 cm CP feed with lossless switching of polarization sense (designed by Jindra, OK1VR)





# 1989: WAC 1296 MHz CW award achieved with the old dish





**1990:** The first issued award VKV 100 OK on 23 cm



ÚSTŘEDNÍ RADIOKLUB ČSSR

**OK 1KIR**

uděluje stanici \_\_\_\_\_

za navázání spojení se 100 československými stanicemi  
v pásmu **12.96** MHz podle platných propozic diplom

**VKV 100 OK**

číslo 1

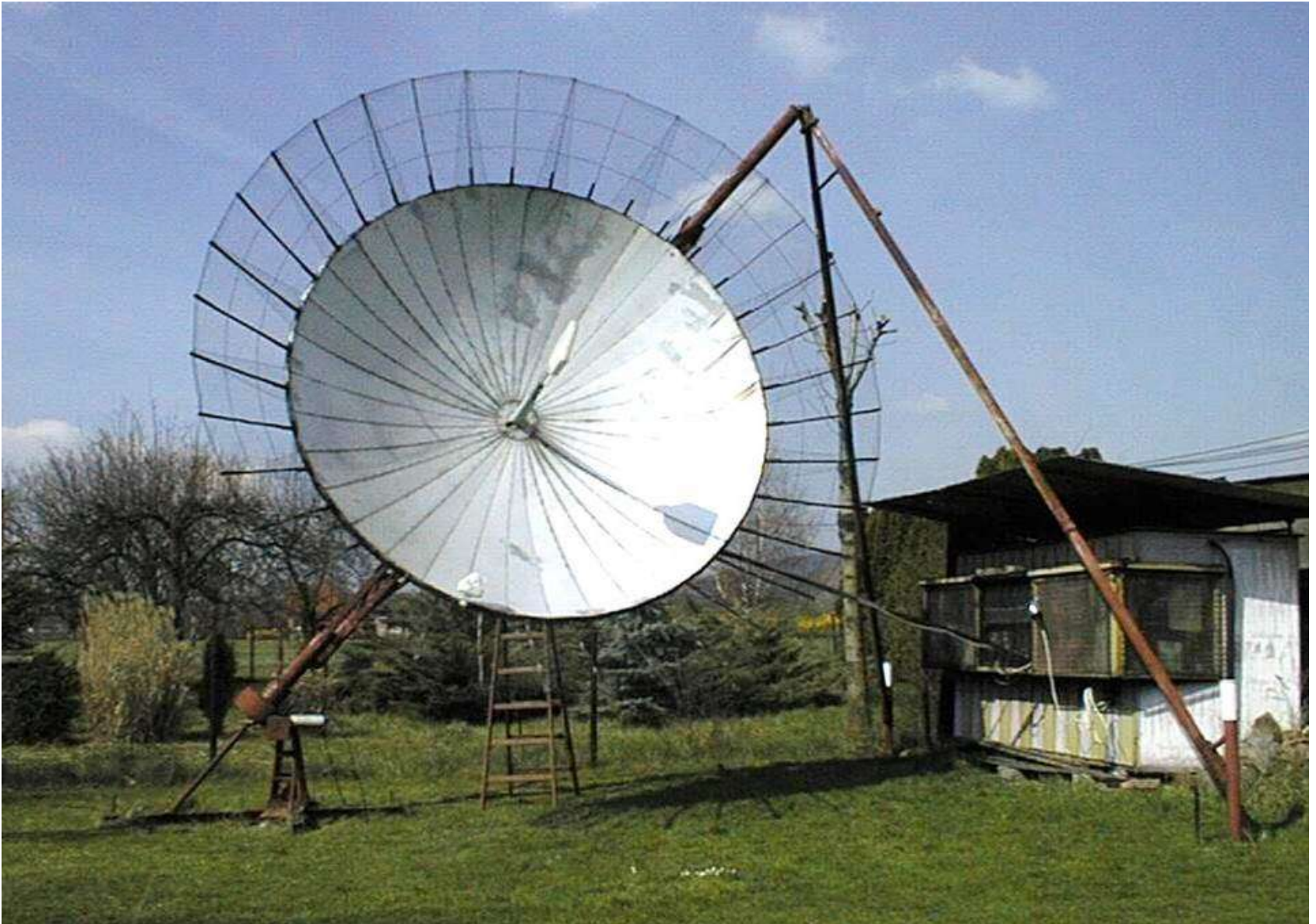
Praha, dne 1.1.1990

*Jaroslav Janec*  
VKV komise OK1VAM

*Petr*  
URK ČSSR



**1990:** The 4.0/5.5m dish on the polar mount





**1990:** 23 cm equipment in discarded old newspaper stand



**2002:** Waterfloods on 12th Aug 2002 - „steady“ period before damaging wave completely covered the „newspapers“ stand.





**2005:** First QSOs with the new 4.5m dish and the new equipment

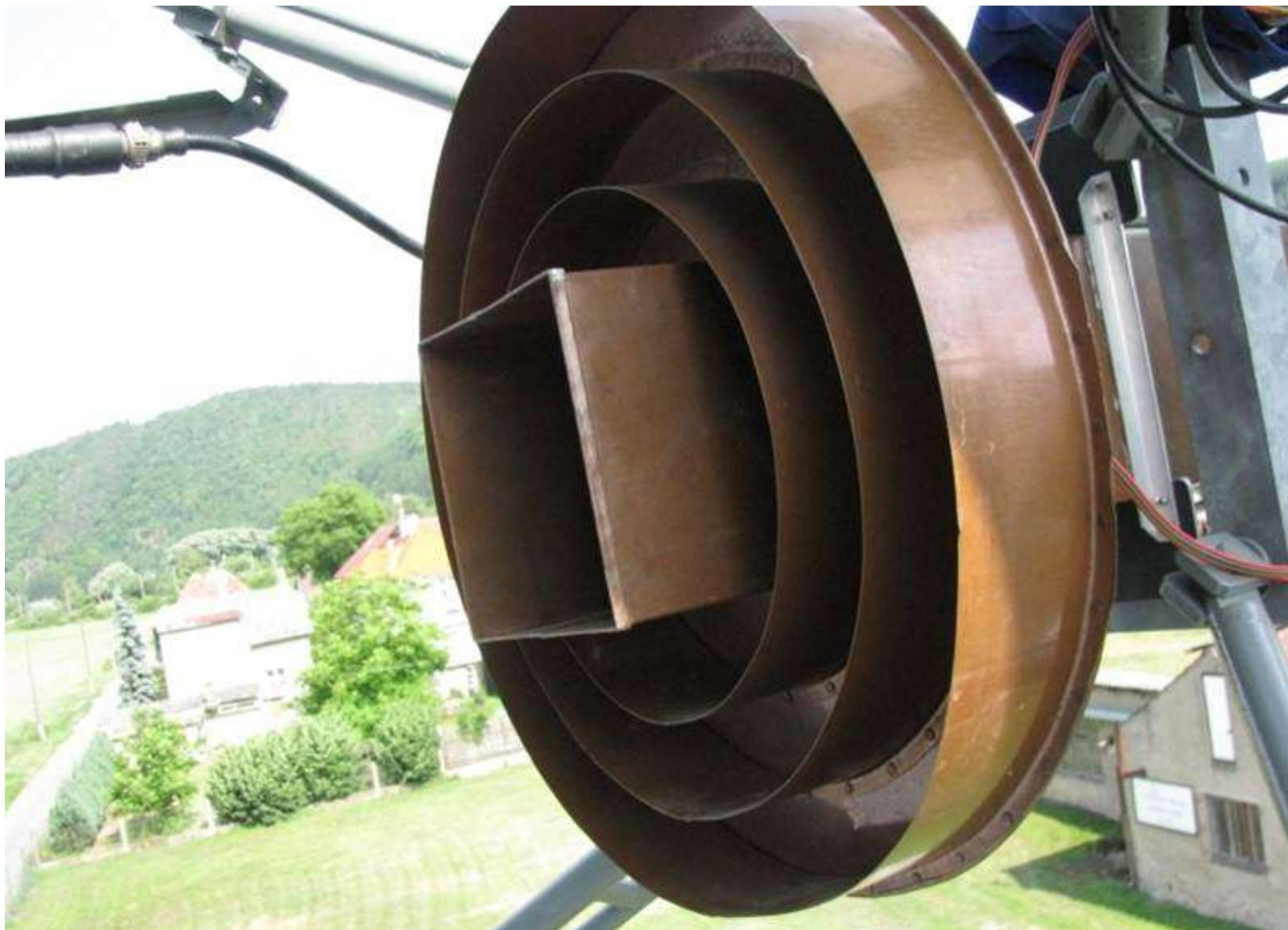




**2005:** Solid dish ( $f/D=0.42$ ) with CP feed



**2005:** Septum feed with 3 chaparral rings (by OM6AA)





**2005:** VLNA with protection relay in a plastic box





**2007:** Linear feed EIA for  $f/D=0.42$  - used for EME expeditions with YAGI antennas

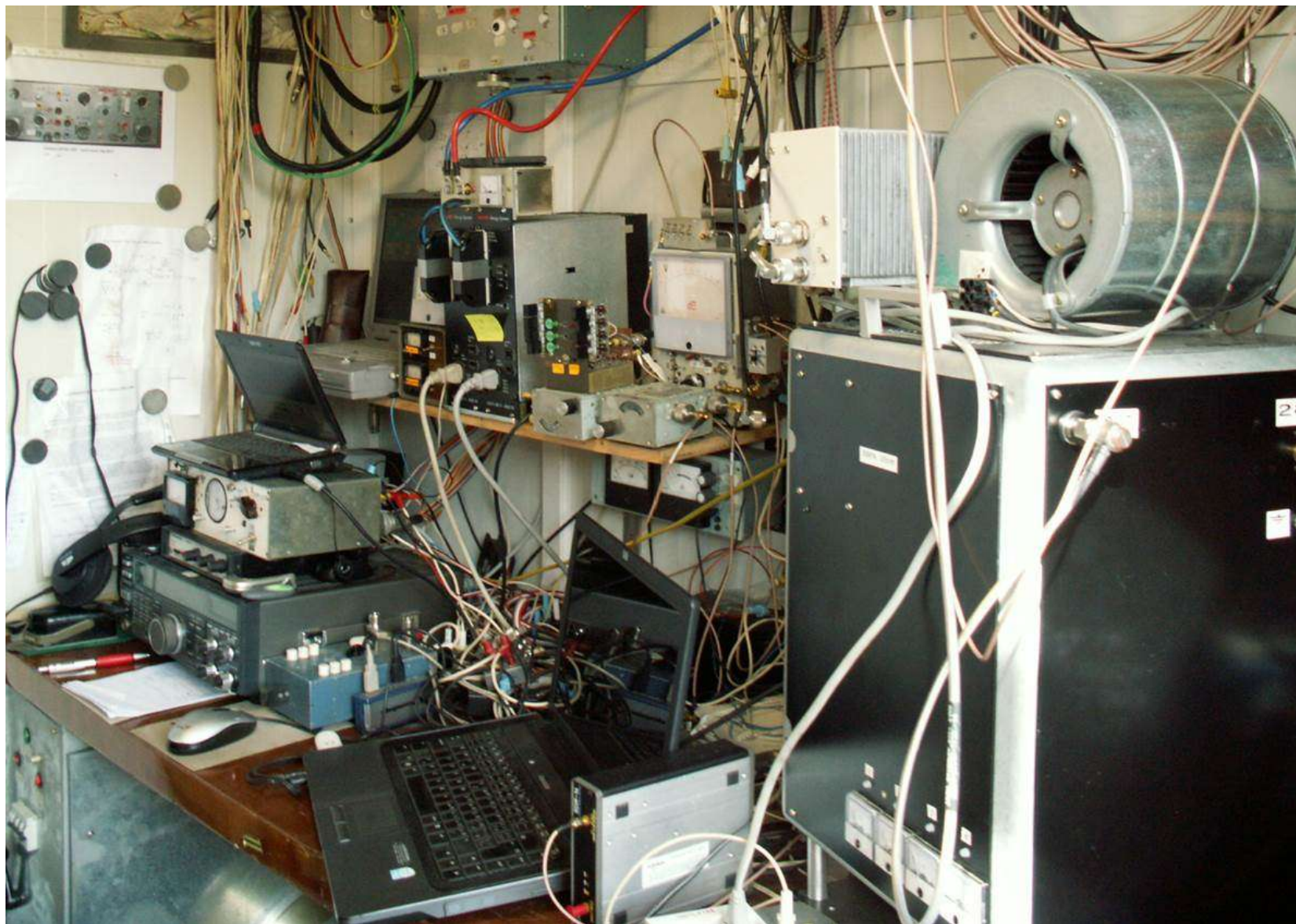


# 2009: WAC 23cm – digital operation





**2010:** 23 cm equipment inside the 1.9 x 1.9 m shelter





**2012:** Dish extension to 6.1m by the mesh rim ( $f/D=0.31$ )



**2013:** Linear loop feed (by OM6AA) for the new  $f/D=0.31$



# **2014: Collection of countries DXCC 23 cm award**

## **DXCC countries via EME:**

**1980** SK2GJ; **1981** G3LTF, VE7BBG, K2UYH;  
**1982** PA0SSB, DJ4AU, Z25JJ, LX1DB, VK5MC, GW3XYW, OE9XXI;  
**1983** YU1AW, ZL3AAD; **1984** HB9BM, F6EZA, HB0BM/p, ZS6NG;  
**1985** JH3EAO, IN3HER; **1989** YV5ZZ, UA1ZCL, LA1K; **1990** EA3UM;  
**1991** OZ4MM, OH2DG, ON4UV; **1992** SV1OE; **1993** EA6/DF5JJ;  
**1995** OK1CA, EA9/EA3UM; **1996** CT1DMK, YL3AG/A, **1997** S59DCD, NL7F, 4X6UJ;  
**1998** PY5ZBU, HA5SHF; **2000** LU8EDR, OX2K; **2005** C31TLT, ES6RQ, EI/DL1YMK;  
**2006** CT3/DL1YMK, SP6JLW, UR5LX; **2007** KH7X, TF/DL1YMK, BY4RSA, P43L;  
**2008** DL1YMK/CX, T7/HB9EHJ, EV5M, 4O/OK1DFC, Z3/OK1DFC, UA9FAD;  
**2009** V5/KT6Q, LZ1DX, 5N0EME, MI/DL1YMK , E77DX, 9A5AA, DP1POL, YO8BCF, OH0/DL1YMK;  
**2010** UN7GK, 8Q7QQ, R2/DL1YMK, GM4PMK, BV/DL3OCH, OY3JE, DU/DL3OCH;  
**2011** LY/DL1YMK, 7P8EME, ISO/OK5EME, 8P9HP;  
**2012** 4U1ITU, XV4HP, TK/DL1YMK, SV9/DF8DX, MJ/DL2NUD, MU/DL2NUD, TI2AEB;  
**2013** 9G5EME, 5H1DX/3, 9X0EME, J45EME, FP/DJ4DT, TA/PE1L, YJ0HP, H44HP, OM1TF;  
**2014** T88QX, 9Y4TBG, 6W/PE1L, HK1H, 5B/PE1L, PZ5UD

**In total 97. Only three deleted DXCC (DL, Y2 and OK) via tropo used for completion.**

**Many thanks to all stations for QSOs!**